

Ser. No. 10/772,063  
Response to Office Action of 07/12/2005

Attorney Docket: D0932-00447

**REMARKS**

Claims 1-10, 12-17, and 38-41 are pending.

Independent Claims 1, 14, and 38-41 are amended.

**I. Claim Rejections under 35 U.S.C. § 103**

The Examiner rejects claims 1-10, 12-17, and 38-41 under 35 U.S.C. § 103(a) as being obvious over U.S. published application No. 2004/018524 to Fay *et al.* ("Fay") in view of U.S. Patent No. 6,680,127 to Capps ("Capps"). This rejection is traversed because Fay and Capps, either taken singly or in combination do not disclose the claimed invention.

The Examiner acknowledges that Fay is silent as to the application of an antifungal/antimicrobial agent in the amount of less than 200 ppm in the cellulosic facing. (Office Action at page 3, ¶ 2.e.). The Examiner then relies on the disclosure of Capps as teaching "an insulative board comprising paper facings comprising an antifungal agent on said facings in an amount of 100 ppm (Abstract, col. 2, lines 1-6, and col. 7, lines 1-6)."

In response, the independent claims 1, 14, 38, 39, 40 and 41 have been amended to now recite that the amount of antifungal/antimicrobial agent present in the cellulosic facing is "in weight of less than 200 ppm of the dry weight of the cellulosic facing." The amount of the antifungal/antimicrobial agent in the insulation product claimed herein is defined in terms of a fraction of the weight of the cellulosic facing material and not the total weight of the insulation product and specifically to be less than 200 ppm **of the dry weight of the cellulosic facing**. This amendment is fully supported by the disclosure of the specification as originally filed and no new matter is added.

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In contrast, the Capps reference discloses antifungal gypsum board. Capps discloses that the antifungal agent may be provided in the front and back paper facings of the gypsum boards. (See, e.g. Capps at col. 7, lines 1-6). But, the antifungal gypsum board of Capps contains antifungal agent in the amount of about 0.01 to 1.5 wt. % (about 100 ppm to 15000 ppm) based on the dry weight of the gypsum in the board. (See Capps at col. 2, lines 2-7; col. 7, lines 14-17). Thus, although the Capps disclosure mentions "100 ppm" because the basis for that fractional amount is different from the basis for the "less than 200 ppm" required by the amended claims 1, 14, 38, 39, 40 and 41, the amount of antifungal agent used in the gypsum board of the Capps reference is substantially higher than the level required by amended claims 1, 14, 38, 39, 40 and 41.

Gypsum boards generally comprises a gypsum core and paper surfacing bonded to both sides of the core. (See Capps at col. 2, lines 47-49). Because of the large quantity of gypsum present in gypsum boards, even the lowest level of antifungal agent disclosed in Capps, 100 ppm of the dry weight of the gypsum in the gypsum board, would be significantly higher than "200 ppm of the dry weight of the cellulosic facing" in the insulation product claimed in the amended claims 1, 14, 38, 39, 40 and 41. For example, 1/2" thick drywall generally consists of about 1,300 pounds of gypsum per thousand ft<sup>2</sup> (= 1.3 lbs/ft<sup>2</sup>). The dry weight of paper facing of drywalls is generally about 30 pounds/3000 ft<sup>2</sup> (= 0.03 lbs/ft<sup>2</sup>). Thus, 100ppm (= 0.0001) of antifungal agent based on the dry weight of the gypsum board is about (1.3 lbs/ft<sup>2</sup>) x (0.0001) = 0.00013 lbs/ft<sup>2</sup>. If the antifungal agent is contained in one of the paper facing of the gypsum board, the amount of antifungal agent defined in relation to the dry weight of the paper facing is:

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$(0.00013 \text{ lbs/ft}^2) / (0.03 \text{ lbs/ft}^2) = 0.004333$  or 4,333 ppm, which is substantially greater than 200 ppm.

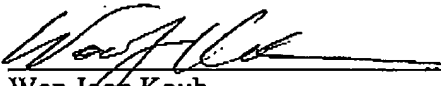
Therefore, the disclosure of Capps does not cure the deficiency of the Fay reference and the cited references either taken singly or in combination do not disclose the invention recited in the amended independent claims 1, 14, 38, 39, 40 and 41. Accordingly, withdrawal of the rejection of claims 1, 14, 38, 39, 40 and 41 and their allowance are requested.

Furthermore, the remaining claims 2-13, and 15-17 depend from independent claims 1 and 14, respectively, which are allowable over the cited references. Thus, these dependent claims are also allowable over the cited references. Withdrawal of the rejection of claims 2-13, and 15-17 and their allowance are also requested.

In view of the above, Applicants believe that the claims as amended are in condition for allowance. Reconsideration of the pending claims and their allowance are respectfully requested.

Respectfully submitted,

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